The Connection

A WELL DRILLING INDUSTRY NEWSLETTER

MISSOURI
DEPARTMENT OF NATURAL RESOURCES

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IMPORTANT NOTICE EFFECTIVE JANUARY 1, 2004

Effective January 1, 2004, several fees that support the Groundwater Protection Fund and the work of the Wellhead Protection Section are scheduled to increase. The increases are allowable through the fee structure established by rulemaking in 1994. The action was unanimously adopted by the Well Installation Board (WIB) at the November 7, 2003, meeting after a serious review of revenue projections, fund balances, and expenses.

Between 1994 and 2003, the WIB had made a conscious decision not to apply the maximum fee amounts allowable by regulation because lower revenue fees were sufficient to operate the section. However, that is no longer the case. Despite reduced staffing levels and limited travel, inflation and increased costs have necessitated some increases just to sustain current section functions.

Wellhead Protection staff have been working with a stakeholder group over the past several months to evaluate potential changes to improve operations. The stakeholder group includes 10 members of the drilling industry, 3 department staff, and 3 other interested people including private well owners and a representative from the Natural Resource Conservation Service. One of the first issues the group addressed was the viability of the Groundwater Protection Fund. The stakeholders concurred with the need for some fee increases already allowable under existing regulations.

The following is a list of the fees that will be impacted, the current amounts charged, and the new fee that will be effective January 1, 2004.

If you have any questions regarding this notice please contact Steve Sturgess, director of the Geological Survey Program, at (573)368-2149.

FEE INCREASE

Fees charged by the section will increase effective January 1, 2004. The amount of fee increase is limited to those provided in regulations (10 CSR 23-2.010) except for registration fees which will be held at $0 ($15 is authorized).

The fees imposed will be:

-- Contractor permit fee (per permit) $ 100

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FEE SCHEDULE

	Maximum Fee Allowed in 1994 Rule	Existing Fee	Fee Effective Jan. 1, 2004
1. contractor permit fee	$100	$50	$100
2. machine/pump truck	$20	$0	$20
3. well registration fees			
well certification fee	$35	$35	$35*
heat pump install <50 tons	$75	$40	$75
heat pump install >50 tons	$150	$75	$150
monitoring well certification fee	$75	$35	$75
4. all other registration fees			
well plug	$15	$0	$0
raise casing	$15	$0	$0
lining of constructed well	$15	$0	$0
deepening of well	$15	$0	$0
major repair or alteration	$15	$0	$0
jetted wells	$15	$0	$0
boreholes	$15	$0	$0
test hole	$15	$0	$0
test hole plug	$15	$0	$0
5. late repermit application penality fee	$40	$15	$40
6. fees per each test	$40	$25	$40

***NOTE:** well certification fee is not increased

INSIDE:

***Fee Increase** continued...*

-- Rig/pump truck fee (per truck)	$ 20
-- Heat pump (<50 tons) installation fee	$ 75
-- Monitoring well certification (per well)	$ 75
-- Testing fee (per test)	$ 40
-- Late re-permit application fee	$ 40

Fee increases were necessary to fund the operations of the Wellhead Protection Section. In the recent past, staffing has been inadequate but has been held at low levels (4 FTE below legislative authorization) to help balance the Groundwater Protection Fund. As the fund has continued to decrease even with the reduced staff and the level of field enforcement and other field activities have declined, DNR management, the drilling community and other water well stakeholders agreed that the section may request the Well Installation Board increase the fee.

Please remit the new fees for all submissions that will arrive at DNR on or after the effective date.

PERMIT REVOCATION OR SUSPENSION

Contractors should be aware that the Wellhead Protection Section has implemented major changes in its enforcement procedure. Contractor permits will no longer be denied renewal for failure to correct or respond to Notice of Violations (NOVs). On advice of the Assistant Attorney General, permit renewal denial will be replaced with permit suspension or revocation. This change is being implemented because the Water Well Driller's Act (WWDA) does not specifically state that the division can deny a permit renewal, but rather states that the division can suspend or revoke a permit.

Although this may seem to be merely a change in words, it is much more. Permit suspension provides for a period of time during which the permittee can not work, except to correct or respond to the NOV. Permit revocation requires the suspension of the permit for 1 year, again except to correct or respond to the NOV. Permit revocation also requires that a bond be posted for a new permit after the 1-year suspension (10 CSR 23-1.130). This can be found at: http://www.dnr.mo.gov/geology/geosrv/WellConRules.htm .

Suspensions, revocations and other orders issued by the division can still be appealed to the board as provided in 10 CSR 23-1.075. This information can also be found at the Web site listed above. The appeal will stay the enforcement of the order until adjudicated by the board.

PARTNERING TO EDUCATE THE PUBLIC

We receive numerous calls from the public experiencing sudden changes in well water quality or quantity. The most frequent request we get is, "What are you going to do to get the driller to fix my problem?" Upon further investigation, it becomes clear that the problem was not caused by the driller, but rather by environmental factors. Wells go bad for many reasons totally unrelated to the driller. Yet it would seem that the driller continues to take the blame from a largely uninformed public.

Whether it is muddy, smelly, or cloudy water, or perhaps no water at all, we must often inform homeowners that declaring the problem to be the result of poor construction is usually premature. We ask them to first determine the age of the well and explain that many wells can degrade as they age. They can run out of water, collapse or the casing can rot, deteriorate or rust. There might have been a minor earthquake that shifted the ground or shifting might have occurred due to natural settling. We explain that wells can stop producing the quantity of water they once produced due to over pumping or drought conditions that caused the water table to drop.

Educating domestic well owners is a large portion of our daily interactions with the public. We discuss how well water changes are often caused by events such as well cave-ins or bridging-over due to unconsolidated formations. We further explain about well casings that develop a leak or a hole. Some problems occur due to the introduction of a foreign substance or contamination flow, such as seepage from a septic system. A well may traverse vertical fractures linking karst features. A sinkhole's proximity may also cause problems. The list of possible causes is lengthy.

The Wellhead Protection Section realizes that we can better assist you by helping to educate the public. Our emphasis is to add to the informal education that you offer concerned well owners when they've called you with a complaint due to changes in either water quality or quantity. We encourage people to ask more questions of their drillers from the beginning, because you can provide the well owner with tremendous knowledge about water availability and proper well construction. The general

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EDITOR'S NOTE

If you have any suggestions, ideas, or comments concerning this newsletter, please let us know.

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public understands little about where their drinking water comes from and often takes their water for granted.

Clients must understand that they are commissioning a professional to provide them with the best water available at their location, but realize that there are other mitigating factors. Contrary to what well owners want to believe, drillers and the DNR staff have no magic wands, but we can partner to assist the public to more fully understand the issues involved and appreciate the importance of safe water supplies.

WELL SITE VISITS

In an effort to work more closely with all permitted well drillers and pump installers, the section is continuing to do site visits. If we happen to see your drill rig or pump truck on site we may stop in and see how the work on site is progressing.

We will check to verify that you have a valid non-restricted permit. As you are aware you may not drill, construct, install pumps or pumping equipment, repair a well or plug a well within this state unless in possession of a valid contractor permit to do so issued by the division.

There are several exceptions. You do not need a permit to drill if the well is on property you own or lease and the well is intended for use at your permanent residence. You do not need a permit to drill if the intended well use is only for agricultural purposes or where the waters to be produced are not intended for use by the public or in any residence other than your own. Also, you do not need an operating permit to plug a hand dug or bored well that is less than 80 feet in depth.

When we visit you in the field we will also be checking to assure your permit number is on the drilling or pump installation machine. The number should be in a conspicuous place on both sides of each machine with the words 'MO PERMIT' and the permit number in figures not less than three inches high, and one and one-half inches wide. The number shall be in a contrasting color to the background. If your permit numbers are not on the drilling or pump installation machine, you will be made aware of the fact and you may be issued a Notice of Violation with the required resolution included.

If no one working on site has the appropriate permit, work will have to be discontinued until the permit issue is resolved.

HELPFUL HINTS- WELL OWNER SIGNATURE

There have been occasions when contractors have stated that the reason they were late submitting the Water Well Certification and Pump Information Record is that they were waiting for the well owner's signature. Although we would like to have the owner's signature on the form, it is not required. Notice the form states "optional" by land owner's signature blank. We do not suggest you put yourself in the position of owing a late submittal fee. If the owner is not available to sign before time to submit the form, send in the form without a signature. If you want the owner's signature on the form for your personal benefit, you could have them sign your copy at a later date.

However, there are instances when the owner's signature can be very important. For example, it can be used to document the intended use of a well, which in turn determines the construction requirements. At times, a domestic or multifamily well is constructed for commercial or public facilities when a community or non-community well is actually required. In cases in which the driller is unsure of the ultimate use of a well, the driller should definitely secure the well owner's signature before the well construction. The owner's signature attesting to the use of the well (as indicated on the certification form) will allow enforcement against the owner rather than the driller if problems arise regarding the use of the well.

PREVIOUSLY ISSUED WELL ADVISORIES

The following well drilling advisories are in effect for the State of Missouri:

1.

Site Name: New Haven (Franklin County). Also known as the Riverfront Superfund Site.

Contaminants of concern: Tetrachloroethene (PCE) and its degradation products: dichloroethylene, dichloroethane, vinyl chloride, and chloroethane.

Specific location and well construction requirements:

To assure that new w**e**lls case out known contamination, all new wells drilled in the area should be constructed in accordance with the following standards:

Sec 36, Town 45, Range 3W:

Consult the division for construction specifications. Much of this area is currently served by public drinking water.

Sec 2, N ½ Sec 11, SW ¼ Sec 1 and NW ¼ Sec 12, Town 44, Range 3W:

WATER WELLS:

- Recommended Casing: 200 feet
- Recommended Grouting: Full-length
- Recommended Borehole Size: 10 inch

HEATPUMP WELLS:

- Recommended not to be constructed in area until plume is further delineated.
- Construction using alternating plugs and fill has potential to spread contamination.
- Contractors and homeowners could assume liability if contamination is spread.

Additional Information: http://missouri.usgs.gov/epa/nh/welladvisory/advisory.htm

Contact: Evan Kifer at 573-

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Previously Issued... *continued...*

368-2170 or Candice McGhee; MDNR Superfund, 573-751-1738

2.

Site Name: Hematite Area (Jefferson County). Former Westinghouse plant.

Contaminants of concern: Trichloroethylene (TCE) and dichloroethylene (DCE)

Specific location: State Highway P, Rice Street, Lee Road, Jo Ann Drive, and an imaginary line roughly half a mile west of the National Guard Armory (located near the Highway A and P intersection) encircle the possible contamination area. The groundwater advisory area is within portions of the south half of Section 9, a north portion of Section 16, and a west portion of Section 10, Township 40 North, Range 5 East.

Well construction requirements: The drilling of water wells and heatpump wells is currently not recommended within the advisory area until the full extent of the TCE and DCE plume is determined. Contact the DNR to determine how to appropriately construct a well.

Contact: Evan Kifer at 573-368-2170 or Candice McGhee; MDNR Superfund, 573-751-1738

WHAT TYPE OF WELL SHOULD BE DRILLED FOR A CHURCH?

A question commonly asked is, "What kind of well should be drilled for a church?" The answer to this question is based on the well type definitions contained in chapter one of the *Missouri Well Construction Rules.* These are found in 10 CSR 23-1.030 and can be located on our Web site at: www.dnr.mo.gov/geology/geosrv/WellConRules.htm .

The applicable definitions include the following:

Transient Non-Community Water System: A public water system that is not a community water system which has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days of the year.

Domestic Well: A private water supply well that is constructed to meet minimum standards and is equipped with a pump that does not have the capacity to produce more than seventy (70) gallons of water per minute and services three (3) or less service connections. A private domestic well that produces less than seventy (70) gallons of water per minute regardless of use is a domestic well.

If at least 25 people would use the well at least 60 days out of the year, the well would need to be a "transient non-community well". Note that two conditions must be met for a transient non-community well to be required. First, there must be a minimum number of people. Then, there is a minimum number of days that the minimum number of people must be met. If a church only meets on Sundays (even if it has multiple services on Sundays), it would meet 52 days. Be sure to include holidays and weddings in the total number of days met IF the number of people attending those activities exceeds 25.

If a church meets less than 60 days out of the year, a domestic well is allowed under the *Missouri Well Construction Rules.* Similarly, if the number of people regularly attending church activities is less than 25 people, then a domestic well is allowed. The Wellhead Protection Section recommends that any church well drilled to a domestic standard be grouted full-length with approved grout material as a precautionary measure.

In situations where it is still unclear as to what type of well you should drill for a church, the Public Drinking Water Program should be contacted for a determination. Contact the DNR Regional Office serving the county where the well is to be drilled. * The insert map can help you locate the appropriate office near you. This will be the office responsible for enforcing the Public Drinking Water Law in that county. It is recommended that you obtain the determination in writing and include it in your files in the event there is a question at a later time.

WELL INSTALLATION BOARD MEETINGS

The next scheduled meeting of the Well Installation Board is set for February 23, 2004 in conjunction with the annual Missouri Water Well Association (MWWA) convention at the Holiday Inn Sun Spree Resort at Lake of the Ozarks. Open session will begin at 10:00 a.m.

The following scheduled meeting of the Well Installation Board is set for May 17, 2004 at the Phelps County Courthouse in Rolla, Missouri. Open session will begin at 10:00 a.m.

WELCOME

Air Brokers HVAC\Gemma Tiller
Brotcke Well & Pump\Dale Adams
Greg Gonzalez Well Drilling\Gary Campbell
Hughes Well Drilling \ Justin Hughes
Leigh Environmental \ Adam Jacyna
Ratterree & Barnes\Steve Scearce
Rhodes Drilling \ Brady Bollinger
Richard Simmons Drilling \ Chris Lasko
Secor International \ Charles Rowan, Larry Williams
Sunbelt Environmental \ Tanya Turner
URS Corporation\Thomas Adams, Kelly Fletcher, Kimberly Hoskins

FAREWELL

Black & Veatch\Jill Murray
J & S Company\Mike Stein
Layne Arkansas \ Jerry Anthony
Raimonde Drilling \ Angelo Raimonde
Simpson Well & Pump \ Howard Simpson
Terracon \ Franklin Fick

PLEASE KEEP FOR FUTURE REFERENCE

WELL AND PUMP INSTALLATION CONTRACTOR TESTING SCHEDULE

Testing Dates for 2004 ----- All dates fall on a Wednesday:
Please call ahead for locations and testing applications. (573) 368-2115

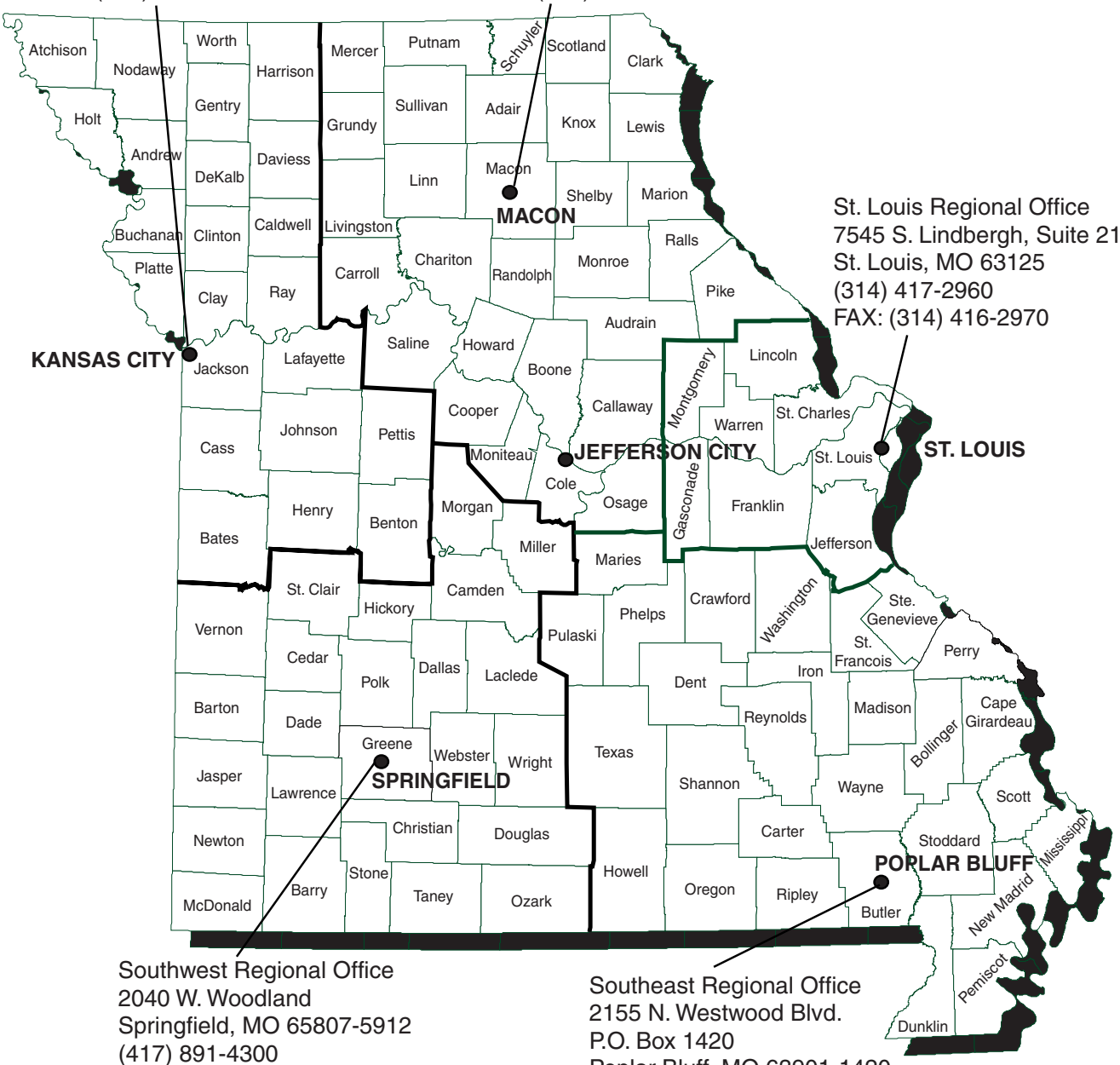
January 14	April 14	July 14	October 13
February 11	May 12	August 18	November 17
March 17	June 16	September 15	December 15

DNR REGIONAL OFFICES

Kansas City Regional Office
500 NE Colbern Rd
Lee's Summit, MO 64086-4710
(816) 622-7000
FAX: (816) 622-7044

Northeast Regional Office
1709 Prospect Dr.
Macon, Mo 63552-2602
(660) 385-2129
FAX: (660) 385-6398

St. Louis Regional Office
7545 S. Lindbergh, Suite 210
St. Louis, MO 63125
(314) 417-2960
FAX: (314) 416-2970



Southwest Regional Office
2040 W. Woodland
Springfield, MO 65807-5912
(417) 891-4300
FAX: (417) 891-4399

Southeast Regional Office
2155 N. Westwood Blvd.
P.O. Box 1420
Poplar Bluff, MO 63901-1420
(573) 840-9750
FAX: (573) 840-9754

GPS WELL LOCATION

Global Positioning System (GPS) receivers have been used to determine well locations for several years by many contractors. Inexpensive, hand held, GPS receivers that are Wide Area Augmentation System (WAAS) capable, can locate a site within 10 to 16 feet. Currently, the use of only 1/4, 1/4, 1/4, section, township and range (legal description) will provide well location to the nearest 10 acres. The GPS receiver units, therefore, provide a greater degree of accuracy and eliminates the need to locate a well on a topographic map by scaling an estimated well position.

Due to the ease and accuracy of using GPS, the Wellhead Protection Section is proposing to change regulations to require location data be submitted with GPS latitude and longitude readings. Recent committee and stakeholder meetings have shown strong support for such a change. The regulatory process will take about 12 to 18 months. As part of the formal regulatory process, public comment will be solicited; so please be prepared to express any concerns.

GPS positions are typically displayed in latitude and longitude coordinates. The latitude and longitude coordinates are displayed in the following most common formats.

Format	Latitude (lat.)	Longitude (long.)
Degrees, minutes, seconds	37° 38' 39.0"	94° 10' 15.0"
Degrees and decimal minutes	37° 38.6500	94° 10.2500'
Decimal degrees	37.64417°	94.17080°

All three coordinates describe the latitude and longitude with the same degree of accuracy. Use of decimal degrees to 5 places after the decimal point is being suggested since decimal degrees are used by Geographical Information Systems (GIS) programs for mapping. This again promotes consistency by providing like documentation and avoids multiple formats of referencing data.

We would appreciate your comments. Please let us know which format you would prefer and why.

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(573) 368-2100

Please Circulate!